REMARKS

Entry of this Amendment, reconsideration and withdrawal of all grounds of rejection, and allowance of all the pending claims are respectfully requested. Claims 1-21, as shown above, remain pending herein.

At the outset, Applicants note with appreciation the indication in the Final Office Action that claims 15-17 are allowed.

Claims 1-14 and 18-21 stand rejected under 35 U.S.C.§112, first paragraph because of the recitation in the base claim regarding the optimum trajectory being maximized through linear transformation. Applicants respectfully traverse this ground of rejection.

Applicants respectfully submit that linear transformation is generally known as a function between two vector spaces that respect the arithmetical operations addition and scalar multiplication defined on vector spaces. The use of linear transformation in tracking a previously tagged object, objects or persons, as in the presently claimed invention, is at least one reason that the claimed invention distinguishes over any of the applied references, alone or in combination.

Claims 1, 20 and 21 have been clarified to recite in part that an optimum trajectory of movement of a tagged person is optimized using linear transformation. As disclosed by the Applicants on page 6, lines 13-18, linear transformation is used to obtain a sub-window 30 of the image I that is invariant to rotation and scale. Tracking a tagged person, in contrast to detection and location, takes advantage of the history of the known positions and poses of the person from previous images, e.g. previous frames of a given

video segment. The probability is maximized to obtain an optimum trajectory of the tagged person (specification, page 7, lines 1-10). The person tagging process can then provide detection, location and tracking by associating the trajectory of each tagged person with an identifier of the best matching model (specification, page 7, lines 15-20. The optimum trajectory is the trajectory with the highest probability of the tagged person's trajectory (specification, page 7, first paragraph).

Applicants respectfully submit that the clarifications to claims 1, 20 and 21, as well as the explanation provided by the specification, support the claim language and enables a person of ordinary skill in the art to practice the invention. Reconsideration and withdrawal of this ground of rejection are respectfully requested.

Claims 1-14 and 18-21 stand rejected under 35 U.S.C.§112, second paragraph. Applicants respectfully traverse this ground of rejection. Applicants note that claims 1, 20 and 21 now provide a proper antecedent basis for the term "optimum trajectory", thus overcoming this grounds of rejection. Reconsideration and withdrawal of this ground of rejection are respectfully requested.

Claims 1-8 and 18-21 stand rejected under 35 U.S.C.§103(a) over Brill et al. (U.S. 6,542,621, herein after "Brill") in view of Brandstetter (U.S. 5,185,815). Applicants respectfully traverse this ground of rejection.

It is admitted in the Office Action that Brill fails to disclose or suggest maximizing the optimum trajectory of a person by the use of linear transformation. However, it is also alleged in the Office Action that Brandstetter provides such a teaching, and that instant claims 1-8 and 18-21 would have been obvious to a person of ordinary skill in the art over the combination of Brill in view of Brandstetter.

Applicants respectfully submit that the combination of Brill in view of Brandstetter fails to disclose or suggest at least the recitation regarding the optimum trajectory of a tagged person is maximized through linear transformation. While Brill is admittedly silent, Brandstetter discloses that the object position in a correlation plane is transformed back to scene coordinates by utilizing the general resolution relationship in equation 8 (col. 10 of the reference) that utilizes a matrix with various angular values cos-sin, sin, cos of coordinate points. Thus, Brandstetter does not teach or disclose the use of a linear transformation that is invariant to rotation and scale (present specification, page 6, lines 13-16) to find an optimum trajectory of a tagged person or object that is being tracked.

Accordingly, it is respectfully submitted that none of the instant claims would have been obvious to a person of ordinary skill in the art at the time of invention in view of the combination of Brill and Brandstetter. Reconsideration and withdrawal of this ground of rejection are respectfully requested.

Claims 9-14 stand rejected under 35 U.S.C.§103(a) over the combination of Brill and Brandstetter as applied to claim 1 above, and further in view of Chang et al. (U.S. 5,999,651, herein after "Chang"). Applicants respectfully traverse this ground of rejection at least for the reason that all of claims 9-14 are patentable in view of their dependence on a base claim that is believed to be patentable for the reasons indicate above, and have an independent basis for patentability. Applicants respectfully submit that the addition of Chang to the combination of Brill and Brandstetter still fails even to obviate Applicant's

claims. Reconsideration and withdrawal of this ground of rejection are respectfully requested.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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